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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,877	12/19/2001	William Earl Webler	5618P2977	1005

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD, SEVENTH FLOOR
LOS ANGELES, CA 90025

EXAMINER

FOREMAN, JONATHAN M

ART UNIT	PAPER NUMBER
3736	2

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/027,877

Applicant(s)

WEBLER, WILLIAM EARL

Examiner

Jonathan ML Foreman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Because of the rejection of previously objected to as allowable subject matter contained herein, the finality of the last Office action is withdrawn.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, 6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,873,835 to Hastings et al.

In regards to claims 1, 5, 6 and 10, Hastings et al. discloses applicant's claimed invention including an elongate member in the form of a rod having dimensions suitable for insertion into a body (Col. 11, lines 1 – 7); at least one thermally conductive heating element comprising at least one of a wire, a film, and a thermistor material coupled to a portion of the elongate member (Col. 11, lines 7 – 9), the heating element comprising a material whose electrical resistance changes in response to a change in temperature; and an interface to a balanced circuit (Col. 13, lines 32 – 40) having the heating element and a variable resistor (Col. 13, lines 61 – 62) as resistive circuit elements. Hastings et al. discloses a portion of the elongate member being electrically conductive and the anemometry circuitry interface comprising an electrically conductive lead electrically coupled to a first end of the heating element, and the elongate member electrically coupled to a second end of the heating element (Col. 11, lines 33 – 35).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 3, 5 – 9, 11, 12, 14 – 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,431,010 to Joffe in view of U.S. Patent No. 5,493,906 to Sen-Zhi.

5. In regards to claims 1 – 3, 5, 6, 9, 11, 12, 14, 17 and 19, Joffe discloses applicant's claimed invention including an elongate member in the form of a needle (Col. 3, lines 6 – 11) and a rod (Col. 2, lines 29 – 35) having dimensions suitable for insertion into a body; at least one thermally conductive heating element comprising at least one of a wire, a film, and a thermistor material coupled to a portion of the elongate member (Col. 3, line 64 – Col. 4, line 25), the heating element comprising a material whose electrical resistance changes in response to a change in temperature. Joffe discloses the needle having an outer diameter between 0.009 inches and 0.134 inches (Col. 3, lines 14 – 18). The anemometry circuitry interface comprises a first conductive lead electrically coupled to a first end of the heating element; and a second electrically conductive lead coupled to a second end of the heating element (Col. 2, line 30). Joffe discloses a feedback loop to keep the tip of the needle at a constant temperature (Col. 3, lines 22 – 26), but fails to disclose the loop comprising an interface to a balanced circuit having the heating element and a variable resistor as resistive circuit element. Nor does Joffe disclose an amplifier coupled to the circuit to amplify the voltage difference sensed between the heating element and the variable resistor, and to input the

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voltage difference back to the circuit to modify the temperature of the heating element such that the heating element assumes a second resistance. However, Sen-Zhi teaches a feedback loop for constant temperature anemometer (Col. 3, lines 48 – 52) comprising an interface to a balanced circuit (Figure 2) having the heating element (64) and a variable resistor (74) as resistive circuit element and an amplifier coupled to the circuit to amplify the voltage difference sensed between the heating element and the variable resistor, and to input the voltage difference back to the circuit to modify the temperature of the heating element such that the heating element assumes a second resistance (Col. 5, line 19 – Col. 6, line 6). It would have been obvious to one having ordinary skill in the art to replace the feedback loop as disclosed by Joffe to include an interface to the balanced circuit as disclosed by Sin-Zhi to better maintain the constant temperature anemometer.

In reference to claims 7 – 8 and 15 – 16, Joffe in view of Sen-Zhi fails to disclose the heating element being between 0.010 inches and 0.400 inches. However, a change in the size of a prior art device is a design consideration within the skill of the art. *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955).

In reference to claim 20, Joffe in view of Sen-Zhi discloses an anemometry circuit and a heating element, but fails to disclose a plurality of heating elements measured by a plurality of anemometry circuits. However, duplicating the components of a prior art device is a design consideration within the skill of the art. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

6. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,431,010 to Joffe in view of U.S. Patent No. 5,493,906 to Sen-Zhi as applied to claims 2 and 11 above, and further in view of U.S. Patent No. 3,470,604 to Zenick.

In reference to claims 4 and 13, Joffe discloses a hypodermic needle, but fails to disclose the needle being formed of stainless steel. However, stainless steel is well known in the medical industry

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for its strength, durability, ease of sterilization etc. Zenick discloses a hypodermic needle that is formed of stainless steel (Col. 1, line 65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the hypodermic needle as disclosed by Joffe out of stainless steel as taught by Zenick in order to have a sturdy, durably and easily sterilized hypodermic needle for insertion into a patient.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,431,010 to Joffe in view U.S. Patent No. 5,493,906 to Sen-Zhi as applied to claim 11 above, and further in view of U.S. Patent No. 5,873,835 to Hastings et al.

8. In regards to claim 18, Joffe discloses the anemometry circuitry being connected by a first conductive lead to a first end of the heating element; and a second electrically conductive lead being coupled to a second end of the heating element (Col. 2, line 30). However, Joffe fails to disclose the forming the elongate member of an electrically conductive material and coupling the first end of the heating element to an electrically conductive lead and coupling the second end of the heating element by the elongate member. Hastings et al. teaches a portion of the elongate member being electrically conductive and the anemometry circuitry interface comprising an electrically conductive lead electrically coupled to a first end of the heating element, and the elongate member electrically coupled to a second end of the heating element (Col. 11, lines 33 – 35). It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the elongate member as disclosed by Joffe to be an electrically conductive material and coupling the first end of the heating element to an electrically conductive lead and coupling the second end of the heating element by the elongate member as taught by Hastings et al. in order to reduce the resistance of the electrical connections to the heating element (Col. 11, lines 33 – 35).

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Response to Arguments

9. Applicant's arguments filed 11/6/03 have been fully considered but they are not persuasive. In regards to Hastings et al., Applicant states that Hastings et al. fails to disclose a balanced circuit having a heating element and a variable resistor as resistive circuit elements. However, the examiner disagrees. The examiner maintains that contained within the diagram shown in Figure 12 and described in Col. 13, lines 32 – 41 is a balance circuit. Contained within this circuit are a heating element (231) and a variable resistor (Col. 13, lines 61 – 62).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan ML Foreman whose telephone number is (703)-305-5390. The examiner can normally be reached on Monday - Friday 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F Hindenburg can be reached on (703)308-3130. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9306 for regular communications and (703)-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0858.


JMLF
February 9, 2004


MAX F. HINDENBURG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700